

10/532655

JC20 R PCT/PTO 25 APR 2005  
0512-1276

IN THE U.S. PATENT AND TRADEMARK OFFICE



In re application of

Marc THEVENOT et al.

Conf.

Application No. **NEW NATIONAL PHASE**

Group

Filed April 25, 2005

Examiner

MULTIPLE-BEAM ANTENNA WITH PHOTONIC BANDGAP MATERIAL

**INFORMATION DISCLOSURE STATEMENT**  
**(SUBMISSION CONCURRENT WITH THE**  
**FILING OF A NEW PATENT APPLICATION)**

Assistant Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

April 25, 2005

Sir:

Pursuant to 37 C.F.R. §§ 1.97 and 1.98, and in fulfillment of the duty of disclosure under 37 C.F.R. § 1.56, applicant(s) hereby submit(s) an Information Disclosure Statement for consideration by the Examiner.

I. LIST OF PATENTS, PUBLICATIONS OR OTHER INFORMATION

The patents, publications, or other information submitted for consideration by the Office are listed on PTO-1449, attached hereto.

II. COPIES

- ☒ Copies of the U.S. patents or publications are not submitted since the USPTO has waived their submission for applications filed after June 30, 2003.
- ☐ Submitted herewith is a legible copy of (i) each foreign patent; (ii) each publication or that portion which caused it to be listed; and (iii) all other information or that portion which caused it to be listed.
- ☒ This application is a National Phase of a PCT application. Some or all of the documents listed on the PTO-1449 are not enclosed because they were cited in the International Search Report and copies should have been forwarded from the International Search Authority pursuant to the trilateral agreement between the USPTO, EPO and JPO, or they are U.S. patents or U.S. published applications. If copies are needed, please contact the undersigned.

III. CONCISE EXPLANATION OF THE RELEVANCE  
(check at least one box)

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a. ☐ **DOCUMENTS IN THE ENGLISH LANGUAGE**

The attached non U.S. patents, non U.S. patent application publications, foreign publications, or other information in the English language do not require a statement of relevancy.

b. ☐ **DOCUMENTS NOT IN THE ENGLISH LANGUAGE**

A concise explanation of the relevance of all patents, publications, or other information listed that is not in the English language is as follows:

c. ☒ **FOREIGN SEARCH REPORT OR ACTION**

An foreign language version of the search report or action that indicates the degree of relevance found by the foreign office is attached, thereby satisfying the requirement for a concise explanation. See MPEP 609(A)(3).

d. ☐ **OTHER**

The following additional information is provided for the Examiner's consideration.

FEES

This Information Disclosure Statement is being filed concurrently with the filing of a new patent application; therefore, no fee is required.

If The Examiner has any questions concerning this IDS, he/she is requested to contact the undersigned.

Respectfully submitted,

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BC/gw

Enclosures: ☒ Form PTO-1449(s)  
☒ Documents  
☒ Foreign Search Report  
☐ Other: \_\_\_\_\_

<b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  (Use several sheets if necessary)	Attorney Docket No.: <b>0512-1276</b>	Application No.: <b>107532655</b>
	Applicant: <b>Marc THEVENOT et al.</b>	
	Filing Date: <b>April 25, 2005</b>	Group Art Unit:

### U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing date (if appropriate)
	4,236,161	11/25/1980	OHM			
	6,262,830	7/17/2001	SCALORA			

### FOREIGN PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No
	FR 2 801 428 A1	5/25/2001	FRANCE				

### OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Chung K.B. et al. "Defect modes in a two-dimensional square-lattice photonic crystal" Optics Communications, North-Holland Publishing Co. Amsterdam, NL, vol. 209, no. 4-6, August 15, 2002, pages 229-235, XP004375303 ISSN: 0030-4018
	Thevenot M. et al. "Directive Photonic-Bandgap Antennas", IEEE Transactions on Microwave Theory and Techniques, IEEE Inc. New York, US, vol. 47, no. 11, November 1999, pages 2115-2121, XP000865109 ISSN: 0018-9480, figures 10, 11
	Shi B. et al., "Defective Photonic Crystals with Greatly Enhanced Second-Harmonic Generation", Optics Letters, Optical Society of America, Washington, US, vol. 26, no. 15, August 1, 2001, pages 1194-1196, XP001110592, ISSN: 0146-9592

EXAMINER:	DATE CONSIDERED
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

\* English language abstract provided for the Examiner's convenience

BC/gw

Y&T April 25, 2005